DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: MOUNTA	IN POND	Lake Area (ha):	10.12
Town:	NEW IPSWICH	Maximum depth (m):	2.5
County:	Hillsborough	Mean depth (m): Volume (m³):	1.5
River Basin:		Volume (m³):	147000
Latitude:		Relative depth:	0.7
Longitude:	71°55′45" W	Shore configuration:	
Elevation (f	t): 1252	Areal water load (m/yr.): 14.89
Shore length	(m):	Flushing rate (yr ⁻¹):	10.30
Watershed are	ea (ha): 248.9	Pretention coeff.:	0.51
% watershed (ponded: 0.0) Lake type: natura	al w/dam

BIOLOGICAL:	27 February 1990	12 September 1989
DOM. PHYTOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANT	PERIDINIUM 60%
#2		UROGLENOPSIS 25%
#3		CERATIUM 15%
PHYTOPLANKTON ABUNDANCE (cells/mL)		1365.0
CHLOROPHYLL-A (µg/L)		8.79
DOM. ZOOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANT	CONOCHILOIDES 63%
#2		KELLICOTTIA 21%
#3		
ROTIFERS/LITER	11	916
MICROCRUSTACEA/LITER	2	. 76
ZOOPLANKTON ABUNDANCE (#/L)	13	997
VASCULAR PLANT ABUNDANCE		Scattered
SECCHI DISK TRANSPARENCY (m)		1.6
BOTTOM DISSOLVED OXYGEN (mg/L)	12.1	0.0
BACTERIA (fecal col., #/100 ml) #1		
#2		
#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None

CHEMICAL: Lake: MOUNTAIN POND Town: NEW IPSWICH					
	27 February 1990		12 September		1989
DEPTH (m)	1.0	2.0	1.0		2.0
pH (units)	4.9	5.2	6.3		5.9
A.N.C. (Alkalinity)	-0.5	0.1	2.2		2.1
NITRATE NITROGEN	0.06	0.06	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.44	0.36	0.46		0.46
TOTAL PHOSPHORUS	0.009	0.011	0.015		0.012
CONDUCTIVITY (p mhas/cm)	26.3	27.0	23.7		23.8
APPARENT COLOR (cpu)	20	22	90		100
MAGNESIUM			0.36		
CALCIUM			1.6		
SODIUM			< 3.0		
POTASSIUM			0.90		
CHLORIDE	< 2	〈 2	2		2
SULFATE	6	6	4		4
TN : TP	56	38	31		38
CALCITE SATURATION INDEX			4.5		

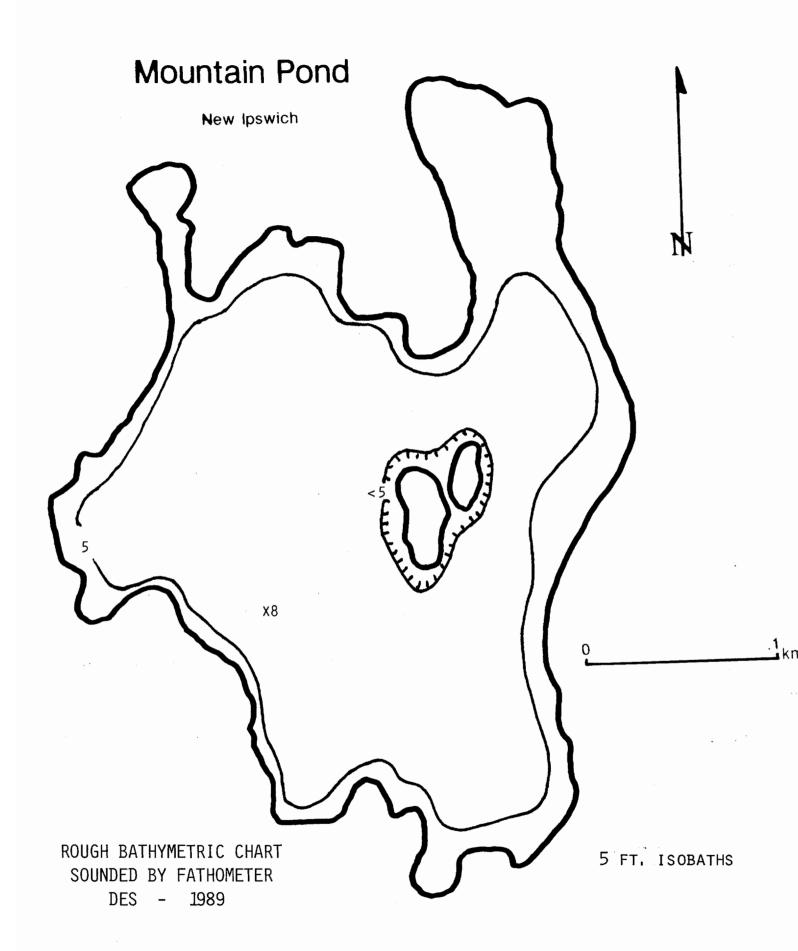
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1989

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	4	1	2	7	Meso.

COMMENTS:

- 1. No public access. All the land around the pond is owned by the New England Forestry Foundation, and a locked gate is across the only road to the pond.
- 2. Two camps were located on the shoreline.
- 3. Merismopedia and Anacystis were the dominant genera of whole-water phytoplankton.



FIELD DATA SHEET

LAKE: MOUNTAIN POND

DATE: 09/12/89

TOWN: NEW IPSWICH

WEATHER: MOSTLY OVERCAST: COOL

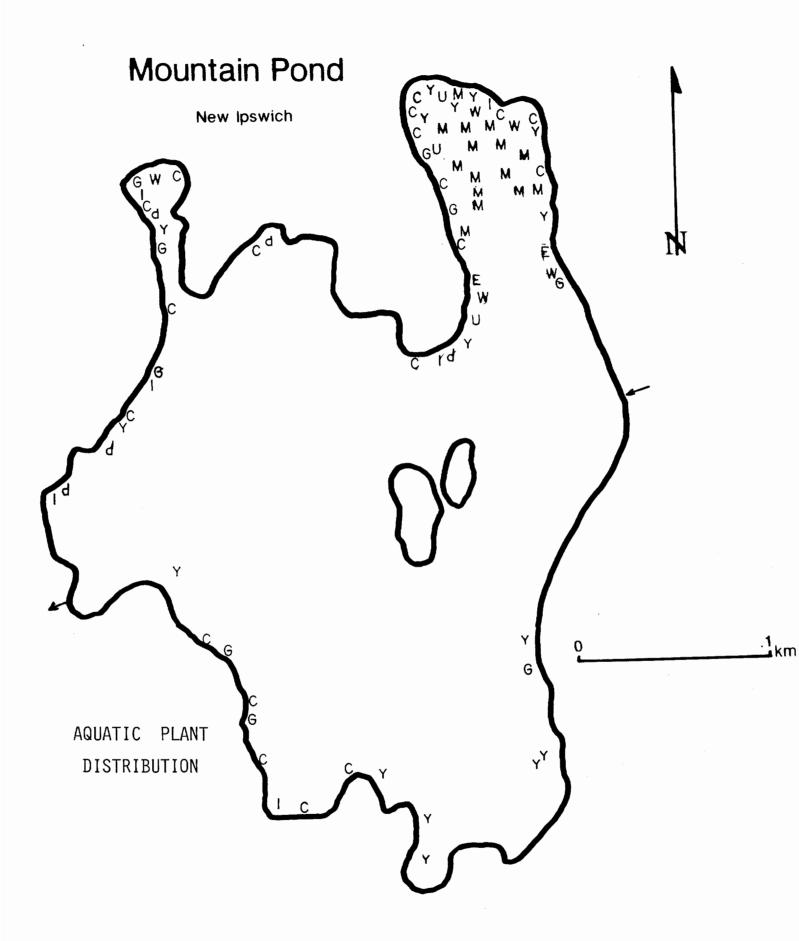
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DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	22.8	8.5	96 %
1.0	21.8	6.5	72 %
2.0	19.0	5.0	54 %
2.4	17.2	0.0	0 %
1			

SECCHI DISK (m): 1.6 COMMENTS:

BOTTOM DEPTH (m): 2.5

TIME: 1235

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAKE: MOUNTAIN POND		TOWN: NEW IPSWICH	DATE: 09/12/89	
l/	PLANT NAME		ADUNDANCE	
Key	GENERIC	COMMON	ABUNDANCE	
М	Myriophyllum humile	Water milfoil	Sparse	
Υ	Nuphar	Yellow water lily	Scattered	
ď	Dulichium arundinaceum	Three-way sedge	Scattered	
I	Iris	Iris	Sparse	
U	Utricularia	Bladderwort	Sparse	
W	Potamogeton	Pondweed	Sparse	
С	Chamaedaphne calyculata	Leatherleaf	Scattered	
G,	Myrica gale	Sweet gale	Scattered	

OVERALL ABUNDANCE: Scattered

GENERAL OBSERVATIONS:

- 1. Milfoil plants were locally abundant in the northern cove. Fragments of milfoil were observed floating along much of the shoreline, but the northern cove was the only area of rooted plants.
- 2. Salamanders and sponges were observed.